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ABSTRACT

The United States Training and Employment Service General Aptitude Test Battery (GATB), first published in 1947, has been included in a continuing program of research to validate the tests against success in many different occupations. The GATB consists of 12 tests which measure nine aptitudes: General Learning Ability; Verbal Aptitude; Numerical Aptitude; Spatial Aptitude; Form Perception; Clerical Perception; Motor Coordination; Finger Dexterity; and Manual Dexterity. The aptitude scores are standard scores with 100 as the average for the general working population, and a standard deviation of 20. Occupational norms are established in terms of minimum qualifying scores for each of the significant aptitude measures which, when combined, predict job performance. Cutting scores are set only for those aptitudes which aid in predicting the performance of the job duties of the experimental sample. The GATB norms described are appropriate only for jobs with content similar to that shown in the job description presented in this report. A description of the validation sample is included. (AG)

September 1969 United States Training and Employment Service Technical Report S-10

ED 059288

Development of USTES Aptitude Test Battery

for

Stenographer

(clerical) 202.388

Typist

(clerical) 203.588

Clerk-Typist

(clerical) 209.388

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OFFICE OF EDUCATION
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T 179

U. S. DEPARTMENT OF LABOR

MANPOWER ADMINISTRATION

Technical Report on Development of USTES Aptitude Test Battery

For . . . . . .

Stenographer (clerical) 202.388
Typist (clerical) 203.588
Clerk-Typist (clerical) 209.388

S-10

(Developed in Cooperation with the California, Iowa, Minnesota, North Dakota and Washington State Employment Services)

Manpower Administration
U. S. Department of Labor

September 1969

FOREWORD

The United States Training and Employment Service General Aptitude Test Battery (GATB) was first published in 1947. Since that time the GATB has been included in a continuing program of research to validate the tests against success in many different occupations. Because of its extensive research base the GATB has come to be recognized as the best validated multiple aptitude test battery in existence for use in vocational guidance.

The GATB consists of 12 tests which measure 9 aptitudes: General Learning Ability, Verbal Aptitude, Numerical Aptitude, Spatial Aptitude, Form Perception, Clerical Perception, Motor Coordination, Finger Dexterity, and Manual Dexterity. The aptitude scores are standard scores with 100 as the average for the general working population, with a standard deviation of 20.

Occupational norms are established in terms of minimum qualifying scores for each of the significant aptitude measures which, in combination, predict job performance. For any given occupation, cutting scores are set only for those aptitudes which contribute to the prediction of performance of the job duties of the experimental sample. It is important to recognize that another job might have the same job title but the job content might not be similar. The GATB norms described in this report are appropriate for use only for jobs with content similar to that shown in the job description included in this report.

GATB Studies #618, 691,
714, 715,
2682, 2748

DEVELOPMENT OF USTES APTITUDE TEST BATTERY

FOR

Stenographer (clerical) 202.388-014

S -10

This report describes research undertaken for the purpose of developing General Aptitude Test Battery (GATB) norms for the occupation of Stenographer (clerical) 202.388-014. The following norms were established:

GATB Aptitudes	Minimum Acceptable GATB Scores
G - General Learning Ability	95
P - Form Perception	100
Q - Clerical Perception	100
K - Motor Coordination	100

RESEARCH SUMMARY - VALIDATION SAMPLE

Sample:

130 students enrolled in high schools in Minnesota.

This study was conducted prior to the requirement of providing minority group information. Therefore, minority group composition is unknown.

Criterion:

Work sample

Design:

Concurrent (test and criterion data were collected at approximately the same time).

Minimum aptitude requirements were determined by an analysis of a job and course summary and statistical analyses of aptitude mean scores, standard deviations, correlations with the criteria, and selective efficiencies.

Concurrent Validity:

Phi Coefficient = .20 ($P/2 < .025$)

Effectiveness of Norms:

Only 72% of the non-test-selected students used for this study were good students; if the students had been test-selected with the S-10 norms, 79% would have been good students. 28% of the non-test-selected students used for this study were poor students; if the students had been test-selected with the S-10 norms, only 21% would have been poor students. The effectiveness of the norms is shown graphically in Table 1.

TABLE 1

Effectiveness of Norms

	Without Tests	With Tests
Good Students	72%	79%
Poor Students	28%	21%

VALIDATION SAMPLE DESCRIPTION

Size:

N = 130

Educational Status:

Students had all completed 12 years of education and had received two years of training in shorthand and typing at the school they attended.

Educational Institution:

Students were enrolled in 10 high schools in various cities in Minnesota.

Selection Requirements:

Education: Completion of eleventh grade.

Test: None used.

Principal Activities:

The job duties of the occupation for which students were being trained are shown in the appendix.

Minimum Experience:

All students in the sample had two years of training in typing and shorthand.

No age data were available for this sample. All students had twelve years of education.

EXPERIMENTAL TEST BATTERY

All tests of the GATB, B-1001, with the exception of Part E, were administered during the spring of 1949. The B-1001 scores were converted to equivalent B-1002 scores.

CRITERION

The criterion consisted of scores on Employment Service Typing and Dictation tests. One group of 52 students were tested on Employment Service Typing Test No. 2 and Dictation Exercise No. 10. The second group of 78 students were tested with several forms of the Employment Service Typing and Dictation tests. All dictation exercises were given at 80 words per minute. The raw scores of the performance tests were converted to normalized T-scores and then combined to form a single criterion.

The combined T-score was obtained by first averaging the T-score for words per minute with the T-score for typing errors. This result was then averaged with the T-score for dictation errors to obtain the final criterion score used in the study.

Criterion Distribution:

Actual Range:	31 - 68
Mean:	50.0
Standard Deviation:	7.2

Criterion Dichotomy:

The criterion distribution was dichotomized into high and low groups by placing 28% of the sample in the low criterion group to correspond with the percentage of students considered unsatisfactory or marginal. Students in the high group were designated as "good students" and those in the low group as "poor students." The criterion critical score is 46.

APTITUDES CONSIDERED FOR INCLUSION IN THE NORMS

Aptitudes were considered for tryout in the norms on the basis of a qualitative analysis of the job and course summaries and a statistical analysis of test and criterion data. Tables 2, 3 and 4 show the results of the qualitative and statistical analyses.

TABLE 2

Qualitative Analysis

(Based on an analysis of the job and course summaries the following aptitudes appear to be important for success in the curriculum.)

Aptitude	Rationale
G - General Learning Ability	Required in learning shorthand, and in exercising good judgment in performing the various duties of a stenographer.
V - Verbal Aptitude	Required in taking and transcribing dictation accurately.
P - Form Perception	Required in learning and remembering shorthand symbols.
Q - Clerical Perception	Required for accuracy in typing and in transcribing dictation.
K - Motor Coordination	Required for taking dictation rapidly and typing rapidly.
F - Finger Dexterity	Required for taking dictation rapidly and typing rapidly.

TABLE 3

Means, Standard Deviations, Ranges, and Pearson Product-Moment Correlations with the Criteria for the Aptitudes of the GATB; N = 130

Aptitude	Mean	SD	Range	r
G - General Learning Ability	108.0	13.3	78-151	.289**
V - Verbal Aptitude	104.4	11.0	84-137	.349**
N - Numerical Aptitude	107.7	14.8	79-150	.294**
S - Spatial Aptitude	108.8	15.4	72-147	.010
P - Form Perception	118.7	14.0	77-153	.226**
Q - Clerical Perception	104.1	13.4	91-158	.335**
K - Motor Coordination	114.0	14.5	80-146	.204*
F - Finger Dexterity	103.4	20.0	53-167	.088
M - Manual Dexterity	102.8	21.9	40-179	.038

* Significant at the .05 level
** Significant at the .01 level

TABLE 4

Summary of Qualitative and Quantitative Data

Type of Evidence	Aptitudes								
	G	V	N	S	P	Q	K	F	M
Job Analysis Data Important	X	X			X	X	X	X	
Irrelevant									
Relatively High Mean				X	X		X		
Relatively Low Standard Deviation	X	X			X	X			
Significant Correlation with Criterion	X	X	X		X	X	X		
Aptitudes to be Considered for Trial Norms	G	V	N		P	Q	K		

DERIVATION AND VALIDITY OF NORMS

Final norms were derived on the basis of a comparison of the degree to which trial norms consisting of various combinations of Aptitudes G, V, N, P, Q, and K, at trial cutting scores, were able to differentiate between the 72% of the sample considered good students and the 28% of the sample considered poor students. Trial cutting scores at five-point intervals approximately one standard deviation below the mean are tried because this will eliminate about 1/3 of the sample with three-aptitude norms. For two-aptitude trial norms, minimum cutting scores of slightly more than one standard deviation below the mean will eliminate about 1/3 of the sample; for four-aptitude trial norms, cutting scores of slightly less than one standard deviation below the mean will eliminate about 1/3 of the sample. The Phi Coefficient was used as a basis for comparing trial norms. Norms of G-95, P-100, Q-100 and K-100 provided optimum differentiation for the occupation of Stenographer (clerical) 202.388-014. The validity of these norms is shown in Table 5 and is indicated by a Phi Coefficient of .20 (statistically significant at the .025 level.)

TABLE 5

Concurrent Validity of Test Norms, G-95, P-100, Q-100, and K-100

	Nonqualifying Test Scores	Qualifying Test Scores	Total
Good Students	26	67	93
Poor Students	19	18	37
Total	45	85	130

Phi Coefficient (Ø) = .20 Chi Square ($X^2 y$) = 5.4

Significance Level = $P/2 < .025$

DETERMINATION OF OCCUPATIONAL APTITUDE PATTERN

The data for this study met the requirements for incorporating the occupation studied into OAP-12 which is shown in Section II of the Manual for the General Aptitude Test Battery. A Phi Coefficient of .31, is obtained with the OAP-12 norms of G-95, P-95, and Q-100 using data from the validation sample and all five Check Studies. This Phi is less than the Phi Coefficient (.32) obtained when the S-10 norms are applied to the data from the validation sample and the five Check Studies.

CHECK STUDY RESEARCH SUMMARY SHEET FOR S-10

S-10 GATB #691

Stenographer (clerical) 202.388-014

Check Study #1 Research Summary

Sample:

60 high school students with two years of course work in typing and shorthand. This study was conducted prior to the requirement of providing minority group information. Therefore, minority group composition is unknown.

TABLE 6

Means, Standard Deviations (SD), Ranges, and Pearson Product-Moment Correlations with the Composite Criterion for Age, Education and the Aptitudes of the GATB.[1] N = 60

	Mean	SD	Range	r
Age (years)	16.0	.7	15-18	.067
Education (years)	11.3	.4	11-12	. 100
G - General Learning Ability	105.5	10.0	88-126	.411**
V - Verbal Aptitude	101.1	9.1	82-122	.275*
N - Numerical Aptitude	109.4	11.9	85-136	.588**
S - Spatial Aptitude	104.5	13.5	77-139	.012
P - Form Perception	115.4	11.6	92-145	.274*
Q - Clerical Perception	111.8	12.6	90-150	.535**
K - Motor Coordination	108.2	14.3	75-138	.440**
F - Finger Dexterity	99.5	16.7	58-138	.376**
M - Manual Dexterity	95.2	17.3	50-132	.240

* Significant at the .05 level
** Significant at the .01 level

1/ B-1001 scores were converted to equivalent B-1002.

Criterion

Work sample consisting of performance on Employment Service Typing and Dictation Tests and the T-62 Spelling Test. The criterion data was collected during the period of May, 1948 to April, 1951.

Design

Concurrent (all students were tested in their junior or senior year.)

Principle Activities

The job duties of the occupation are comparable to those shown in the job description in the appendix.

Concurrent Validity

Phi Coefficient = .44 P/2 < .0005

Effectiveness of the Norms:

Only 57% of the nontest-selected students in this sample were good students; if the students had been test-selected with the S-10 norms, 80% would have been good students. Forty-three percent of the nontest-selected students used for this study were poor students; if the students had been test-selected with the S-10 norms, only 20% would have been poor students. The effectiveness of the norms is shown graphically in Table 7.

TABLE 7
Effectiveness of S-10 Norms

	Without Tests	With Tests
Good Students	57%	80%
Poor Students	43%	20%

TABLE 8

Concurrent Validity of S-10 Norms of G-95, P-100, Q-100 and K-100 on Check Study #1

	Nonqualifying Test Scores	Qualifying Test Scores	Total
Good Students	10	24	34
Poor Students	20	6	26
Total	30	30	60

Phi Coefficient (Ø) = .44 Chi Square (X^2) = 11.5
Significance Level = P/2 < .0005

S-10 GATB Study #714

Stenographer (clerical) 202.388-014

Check Study #2 Research Summary

Sample:
50 female first year stenography students at Bellingham High School, Bellingham, Washington and Highlane High School, Seattle, Washington.

This study was conducted prior to the requirement of providing minority group information. Therefore, minority group composition is unknown.

TABLE 9
Means, Standard Deviation (SD), Ranges, and Pearson Product-Moment Correlations with the Criterion for Age, Education and Aptitude of the GATB,[1] N=50.

	Mean	SD	Range	r [2]
Age (years)	16.7	.6	16-18	-.010
Education (years)	11.3	.5	11-12	-.080
G - General Learning Ability	105.5	9.5	83-128	-.450**
V - Verbal Aptitude	104.0	10.1	86-129	-.385**
N - Numerical Aptitude	102.9	11.4	81-128	-.505**
S - Spatial Aptitude	106.4	12.8	79-140	-.144
P - Form Perception	121.5	11.8	95-151	-.056
Q - Clerical Perception	112.6	10.7	95-141	-.444**
K - Motor Coordination	117.1	14.5	80-150	-.339*
F - Finger Dexterity	106.5	21.1	65-146	-.115
M - Motor Coordination	104.8	19.1	66-143	-.274

* Significant at the .01 level.
**Significant at the .05 level.

1/B-1001 scores were converted to equivalent B-1002 scores.

2/Since the criterion was computed in terms of errors, correlations with the criterion are negative.

Criterion:
Work sample consisting of performance on Employment Service Dictation Test.

Design:
Concurrent (test and criterion data were collected at approximately the same time in 1951.)

Principal Activities:
The duties for the sample are comparable to those shown in the job description in the appendix.

Concurrent Validity:
Phi Coefficient (ϕ) = .35 ($P/2 < .01$)

Effectiveness of Norms:
Only 66% of the nontest-selected students used for this study were good students; if the students had been test-selected with the S-10 norms, 78% would have been good students. Thirty-four percent of the nontest-selected students used for this study were poor students; if the students had been test-selected with the S-10 norms, only 22% would have been poor students. The effectiveness of the norms when applied to this independent sample is shown graphically in Table 10.

TABLE 10

Effectiveness of S-10 Norms on Check
Study Sample #2

	Without Tests	With Tests
Good Students	66%	78%
Poor Students	34%	22%

TABLE 11

Concurrent Validity of S-10 Norms
of G-95, P-100, Q-100, K-100 on
Check Study # 2

	Nonqualifying Test Scores	Qualifying Test Scores	Total
Good Students	5	28	33
Poor Students	9	8	17
Total	14	36	50

Phi Coefficient (ϕ) = .35
Significance Level = $P/2 < .01$

Chi Square (X^2_y) = 6.2

CHECK STUDY RESEARCH SUMMARY SHEET FOR S-10

S-10 GATB Study #715

Typist (clerical) 203.588-018

Check Study #3 Research Summary

Sample:

58(4 male and 54 female) second year typing students at Highline High School, Seattle, Washington and Bremerton High School, Bremerton, Washington. This study was conducted prior to the requirement of providing minority group information. Therefore, minority group composition is unknown.

TABLE 12

Means, Standard Deviations (SD), Ranges, and Pearson Product-Moment Correlations with the Criterion (r) for Age, Education and Aptitudes of the GATB.1

	Mean	SD	Range	r
Age (years)	17.7	.5	17-18	-.256*
Education (years)	12.0	.2	11-12	-.046
G - General Learning Ability	104.2	16.0	76-142	.504**
V - Verbal Aptitude	104.6	13.5	80-133	.498**
N - Numerical Aptitude	104.1	16.7	69-134	.512**
S - Spatial Aptitude	105.5	16.6	71-152	.284*
P - Form Perception	119.9	14.1	82-145	.258
Q - Clerical Perception	112.0	11.2	84-139	.295*
K - Motor Coordination	113.9	11.3	91-141	.170
F - Finger Dexterity	120.0	22.4	58-154	.164
M - Manual Dexterity	112.3	20.8	59-165	.446**

* Significant at the .05 level
** Significant at the .01 level

1/ B-1001 scores were converted to equivalent B-1002 scores.

Criterion

Work sample consisting of scores on Employment Service Typing Tests. The criterion data were collected in 1951.

Design

Concurrent (test and criterion data were collected at approximately the same time.)

Concurrent Validity

Phi Coefficient = .28 ($P/2 < .025$)

Effectiveness of Norms

Only 59% of the nontest-selected students used for this study were good students; if the students had been test-selected with the S-10 norms, 70% would have been good students. Forty-one percent of the nontest-selected students used for this study were poor students; if the students had been test-selected with the S-10 norms, only 30% would have been poor students. The effectiveness of the norms when applied to this independent sample is shown graphically in Table 13.

TABLE 13
Effectiveness of S-10 Norms
on Check Study Sample #3

	Without Tests	With Tests
Good Students	59%	70%
Poor Students	41%	30%

TABLE 14

Concurrent Validity of S-10 Norms of G-95, P-100, Q-100 and K-100
on Check Study Sample #3

	Nonqualifying Test Scores	Qualifying Test Scores	Total
Good Students	8	26	34
Poor Students	13	11	24
Total	21	37	58

Phi Coefficient (Ø) = .28 Chi Square (X^2_y) = 4.5
Significance Level = P/2 < .025

CHECK STUDY RESEARCH SUMMARY SHEET FOR S-10

S-10 GATB Study #2682

Clerk-Typist (Clerical) 209.388-022

Check Study #4 Research Summary

Sample:

51 females employed as Clerk-Typists by four companies in California.
This study was conducted prior to the requirement of providing minority group status. Therefore, minority group composition is unknown.

TABLE 15

Means, Standard Deviations (SD), Ranges, and Pearson Product-Moment Correlations with the Criterion (r) for Age, Education and Aptitudes of the GATB. N=51

	Mean	SD	Range	r
Age (years)	34.0	11.0	18-58	.189
Education (years)	12.7	1.2	10-16	.077
Experience (months)	107.3	79.9	5-314	.264
G-General Learning Ability	104.5	12.7	77-132	.167
V-Verbal Aptitude	111.7	13.7	76-149	.242
N-Numerical Aptitude	104.2	13.7	71-135	.152
S-Spatial Aptitude	98.1	18.4	65-137	.000
P-Form Perception	110.9	17.7	75-146	.186
Q-Clerical Perception	126.0	15.1	98-164	.168
K-Motor Coordination	124.5	15.5	95-159	.173
F-Finger Dexterity	104.0	17.1	58-135	-.085
M-Manual Dexterity	110.2	19.4	73-183	-.081

Criterion:

Supervisory ratings collected during the period November 1963 to May 1967.

Design:

Concurrent (test and criterion data were collected at approximately the same time).

Concurrent Validity:

Phi Coefficient = .21

Effectiveness of Norms:

Only 67% of the nontest-selected workers used for this study were good workers; if the workers had been test-selected with the S-10

norms, 77% would have been good workers. Thirty-three percent of the nontest-selected workers used for this study were poor workers; if the workers had been test-selected with the S-10 norms, only 23% would have been poor workers. The effectiveness of the norms when applied to this independent sample is shown graphically in Table 16.

TABLE 16

Effectiveness of S-10 Norms
on Check Study Sample #4

	Without Tests	With Tests
Good Workers	67%	77%
Poor Workers	33%	23%

TABLE 17

Concurrent Validity of S-10 Norms
G-95, P-100, Q-100 and K-100
On Check Study Sample #4

	Nonqualifying Test Scores	Qualifying Test Scores	Total
Good Workers	11	23	34
Poor Workers	10	7	17
Total	21	30	51

Phi Coefficient (ϕ) = .21 Chi Square (X^2Y) = 2.3
Significance Level - P/2 < .10

In a second study conducted by the California agency, the S-10 norms worked in a positive way for a sample of Stenographers but the level of statistical significance was not high enough to qualify the study as a cross-validation study.

CHECK STUDY SUMMARY SHEET FOR S-10

S-10 GATB Study #2748

Stenographer (trainee) 202x388

Check Study #5 Research Summary

Sample:
51 female students enrolled in the stenographer core area at the Des Moines Technical High School, Des Moines, Iowa.

This study was conducted prior to the requirement of providing minority group information. Therefore minority group composition is unknown.

TABLE 18

Means, Standard Deviations (SD), Ranges, and Pearson Product-Moment Correlations with the Criterion (r) for Age, Education and Aptitudes of the GATB. 1/

	Mean	SD	Range	r
Age (years)	15.4	.3	14-16	.109
Education (years)	9.0 2/	--	--	--
G - General Learning Ability	99.4	14.0	69-124	.600**
V - Verbal Aptitude	98.5	11.5	70-127	.486**
N - Numerical Aptitude	98.9	12.2	69-125	.540**
S- Spatial Aptitude	104.1	17.7	58-143	.374**
P - Form Perception	111.3	13.1	77-155	.348*
Q - Clerical Perception	102.4	14.5	69-128	.458**
K - Motor Coordination	105.0	12.7	80-134	.247
F - Finger Dexterity	100.9	20.5	42-134	.182
M - Manual Dexterity	95.5	19.5	32-148	.288**

*Significant at the .05 level.
**Significant at the .01 level.

1/ The aptitude scores listed below are 10th grade scores. In order to determine the selective efficiency of the S-10 norms on this sample, the S-10 norms were converted to equivalent 10th grade cutting scores and then applied to the data for the sample.

2/ All students were tested in September of their tenth year.

Criterion:
Grade-point averages. Criterion data collected in 1966.

Design:
Longitudinal (test data were collected during the first month of the students enrollment (10th grade) and criterion data were collected at the end of their training at graduation.

Concurrent Validity:
Phi Coefficient (Ø) = .34

Effectiveness of Norms:

Only 69% of the nontest-selected students used for this study were good students, if the students had been test-selected with the S-10 norms, 88% would have been good students. 31 percent of the nontest-selected students used for this study were poor students; if the students had been test-selected with the S-10 norms, only 12% would have been poor students. The effectiveness of the norms when applied to this independent sample is shown graphically in Table 19.

TABLE 19

Effectiveness of S-10 Norms on
Check Study Sample # 5

	Without Tests	With Tests
Good Students	69%	88%
Poor Students	31%	12%

TABLE 20

Concurrent Validity of S-10
G-95, P-100, Q-100 and K-100 on
Check Study Sample #5

	Nonqualifying Test Scores	Qualifying Test Scores	Total
Good Students	14	21	35
Poor Students	13	3	16
Total	27	24	51

Phi Coefficient (ϕ) = .34
Significance Level = $P/2 < .01$

Chi Square (X^2_y) = 5.9

APPENDIX

REQUIRED CORE AREA COURSES FOR
STUDENTS IN CHECK STUDY # 5

TYPING I

A course in the fundamental use, care and operation of the manual and electric typewriter. Training includes the correct use of the keyboard, correct posture habits, and correct operating techniques. Ability to type on the word and sentence level is developed before the completion of the semester.

TYPING 2

A course designed to further develop the students skills. There is an integration of skill building and skill applications. Various letter styles, tables, manuscripts and other business forms are studied and practiced.

TYPING 3

Emphasis will be on developing production speed and accuracy. The use of carbon paper and typing from a rough draft copy will be stressed with emphasis upon the typing of stencils and master carbons for duplicating machines. A brief review of the use of various duplicating machines is included.

TYPING 4

This course is designed to help the student obtain the level of expert typist in production with improvement in accuracy, speed, machine operation, and proofreading. Additional practice is provided in the operation of duplicating machines. Composition, at the machine, of various type of business letters and business papers is part of the class activity.

BOOKKEEPING I

A course designed to develop an understanding of fundamental bookkeeping principles involved with the use of simple books or original entry. Theory of debit and credit in business transaction is included. A practice set is provided for review and application of material learned.

SHORTHAND I

A beginning course which gives the student the basic fundamentals of Gregg Shorthand.

SHORTHAND 2

A review of the Gregg system and beginning work in dictation and transcription. Topics included are: speed building, techniques, skill development, and transcription.

SHORTHAND 3

A course designed to bring shorthand up to the mastery level. The combination of shorthand skills and typewriting skills into transcription skill. Emphasis upon the preparation of mailable copy at an employable rate of speed.

SHORTHAND 4

A course designed to develop increased speed both in dictation and transcription with an emphasis on new material. The introduction of office style dictation, the introduction of factors that will add to the vocational competency of the student.

BUSINESS FILING

A course in the alphabetic, numeric, subject, and geographic filing rules and their application in business.

BUSINESS MACHINES I

Basic operation of adding and calculating machines. Keyboard practice with elementary applications.

BUSINESS MACHINES 2

Fundamental operations in adding and rotary calculations and their use in accumulation, multiplication, including negative multiplication, percentages, discounts and reciprocals.

BUSINESS MACHINES 3

An advanced course which includes more involved application of the machines already studied plus the use of other office machines including duplicating, copying, and transcribing machines.

BUSINESS COMMUNICATIONS

A course designed to develop the principles, procedures, and practices of clear business communications.

OFFICE PRACTICE

A course designed to acquaint students with business and industry and to prepare them to successfully perform the duties of beginning office workers. A finishing course that integrates previously learned skills in shorthand, typing and English usage.

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FACT SHEET

Job Title: Stenographer (clerical) 202.388-014

Job Summary:

Takes dictated notes or verbatim record in shorthand of letters, reports, or memoranda; and transcribes material in appropriate form using typewriter and performs related clerical tasks.

Work Performed:

Takes dictation and transcribes material as dictated or may expand the general information given into a finished letter or composition submitting it for approval and signature. Edits the typewritten transcription copy for correctness in spelling, punctuation, style and message and obtains the signature of the originator. Indexes, classifies cross references and files correspondence, reports, memoranda and other documents. Types stencils and matrices and produces copies by use of duplicating equipment, or by use of a copy machine. Transcribes material recorded on a transcribing machine by playing back the record or tape and typing the message heard through the earphones. Operates adding machines, calculators, copy machines and other kinds of office equipment. Receives and opens mail and directs it to the attention of the appropriate department or individual. May answer telephone, greet and route callers, make appointments and keep appointment schedules. May compose routine correspondence. May perform a variety of other office duties including preparation of statistical reports, statements, bills and invoices. May keep time and account records and receive payments by mail.

Course Summary: (Cross-Validation Study #2)

Learns to take dictation through practice and instruction. This course consists of the following: Memorizing shorthand letters and simple and advanced forms; copying and reading from plastic plates and blackboard; dictation exercises at speeds up to 80 words per minute.

Job Title: Typist (clerical) 203.588-018

Job Summary:

Reproduces printed data from rough draft or corrected copy, using electric or manual typewriter.

Work Performed:

Types letters, reports, stencils, forms, addresses, or other straight-copy material from rough draft or corrected copy. May verify totals on report forms, requisitions, or bills. May operate duplicating machines to reproduce copy. May be designated according to material typed as ADDRESS-CHANGE CLERK (insurance); RECORD CLERK (hotel & rest.); STATISTICAL TYPIST; TICKETING CLERK (banking).

Course Summary: (Cross Validation Study #3)

Learns to type through practice and instruction with emphasis on speed and accuracy. The course consists of the following: Improvement of typing power and speed, various forms, duplicate copies; tabulated reports, office procedure and legal documents.

Job Title: Clerk-Typist (clerical) 209.388-022

Job Summary: Types correspondence, reports, memoranda, and other materials from a dictating machine, rough copy, or general instructions, using either manual or electric typewriter, and performs other related clerical duties.

Work Performed: Types letters, forms, reports and stencils to specification: Picks up material to be typed from in-basket or supervisor. Determines number of copies to make, type of paper to use, or format to follow, using established office procedure or instructions from supervisor. Counts required number of sheets of typing paper to make specified number of copies, and places carbon paper between each sheet. Places paper in typewriter, straightens sheets, determines correct margins, and sets marginal stops on typewriter. Types the material according to supervisor's instructions or established office procedure. Proofreads typed material and makes corrections in spelling and punctuation, when necessary. Separates original and copies and places pages in sequence, types addresses on envelopes for mailing and returns correspondence to supervisor for signature. Files or routes copies as designated.

Cleans typewriter and maintains supply of necessary forms, stationary and clerical supplies. Removes erasure particles from typewriter with brush. Cleans type, as necessary, with dough-like plastic compound. Removes roller from typewriter, and wipes roller and back plate with clean dry cloth, or cloth dampened with alcohol or other prescribed cleaning solution. Picks up clerical supplies from stock room or requisitions supplies as needed to keep adequate supply on hand. Replaces typewriter ribbon when necessary.

Performs related clerical tasks: Answers telephone inquiries, files correspondence and reports; opens, sorts, and distributes mail; keeps simple records; and operates duplicating equipment. May act as receptionist, make simple arithmetical computations, and operate adding machine.

Effectiveness of Norms:
Only 72% of the nontest-selected students in this sample were good students, if the students had been test-selected with the S-10 norms, 79% would have been good students. 28% of the nontest-selected students in this sample were poor students, if the students had been test-selected with the S-10 norms, 21% would have been poor students. (Validation sample)

Only 67% of the nontest-selected workers in this sample were good workers, if the workers had been test-selected with the S-10 norms, 77% would have been good workers. Thirty-three percent of the nontest-selected workers used for this study were poor workers; if the workers had been test-selected with the S-10 norms, only 23% would have been poor workers. (Cross Validation # 4)

Only 62% of the nontest-selected students in this sample were good students, if the students had been test-selected with the S-10 norms, 78% would have been good students. Thirty-eight percent of the nontest-selected students used for this study were poor students; if the students had been test-selected with the S-10 norms, only 22% would have been poor students. (Combined Cross-Validation Samples # 1,2,3,and 5.

Applicability of S-10 Norms:
The aptitude test battery is applicable to jobs which include a majority of the job duties described above.

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